

## ABSTRACT

The invention regards a system reliability or failure predicting apparatus and method  
5 that incorporates known information about system component failure into a system model  
and uses the model with or without other acquired system data to predict the probability of  
system failure. An embodiment of the method includes using probabilistic methods to  
create a system failure model from the failure models of individual system components,  
predicting the failure of the system based on the component models and system data,  
10 ranking the sensitivity of the system to the system variables, and communicating a failure  
prediction.

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